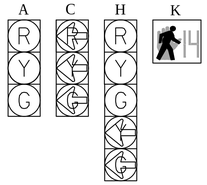
TRAFFIC SIGNAL HEADS

A C H K



NOTE: ALL LENSES ARE 12" L.E.D. UNLESS OTHERWISE NOTED.

SUMMARY OF TRAFFIC SIGNAL HEADS

SIGNAL FACE NUMBER	SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
4,6,8	A	3	MAST ARM W/ BACKPLATE	6
3	H	5	MAST ARM W/ BACKPLATE	1
4	A	3	SIDE-OF-POLE	1
4,6	K	1	SIDE-OF-POLE	4
TOTAL				12

TRAFFIC SIGNAL POLE SUMMARY

POLE NO.	POLE HEIGHT	ARM HEIGHT	ARM LENGTH	NO. OF SIGNALS ON ARM	BRACKET TYPE	XI	X2	X3	X4	NO. OF SIGNALS ON POLE	BRACKET TYPE	NO.OF PUSH BUTTONS ON POLE	LUMINAIRE MOUNTING HEIGHT
1	20	19	40	2	I	39.5	27.5	---	---	1	III	1	---
2	35	19	34	2	I	33.5	22.5	---	---	1	III	---	35
3	15	---	---	---	---	---	---	---	---	2	III	2	---
4	15	---	---	---	---	---	---	---	---	1	III	1	---
5	35	19	36	3	I	35.0	25.5	14.5	---	---	---	---	35
6													
7													
8													
9													
10													
11													
12													

MAST ARM LENGTHS FOR FUTURE OPERATION WITH PROTECTED LEFT-TURNS.

DETECTOR SUMMARY

DETECTOR NO.	DETECTION ZONE	MODE	SIZE (LxW)	PHASE CALLED	PHASE EXTENDED	DELAY/ STRETCH TIMER	INITIAL SETTING (SEC.)
1	6-01	Presence	50x6	6	6	–	–
1	6-02	Presence	50x6	6	6	D	8.0
2	4-01	Presence	50x6	4	4	–	–
2	4-02	Presence	50x6	4	4	–	–
2	4-03	Presence	50x6	4	4	D	8.0
2	4-04	Pulse	6x6	4	4	S	1.0
2	4-05	Pulse	6x6	4	4	S	1.0
2	4-06	Pulse	6x6	4	4	S	1.0
2	4-07	Pulse	6x6	4	4	S	1.0
3	3-01	Presence	50x6	3	3	D	3.0
3	8-01	Presence	50x6	8	8	–	–
3	8-02	Presence	50x6	8	8	–	–
3	8-03	Pulse	6x6	8	8	S	1.0
3	8-04	Pulse	6x6	8	8	S	1.0
3	8-05	Pulse	6x6	8	8	S	1.0
3	8-06	Pulse	6x6	8	8	S	1.0

BILL OF MATERIALS

ITEM	UNIT	QUANTITY	
PAD MOUNTED CABINET	EACH	1	
SIGNAL CONTROLLER (2070)	EACH	1	*
CONFLICT MONITOR (MODEL 2010 ECLip)	EACH	1	
BATTERY BACKUP SYSTEM	EACH	1	
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	12	
TRAFFIC SIGNAL POLE, STEEL (SEE POLE SUMMARY)	EACH	3	
TRAFFIC SIGNAL PEDESTAL ALUM. (15')	EACH	2	
TRAFFIC SIGNAL PEDESTAL (JOINT USE) ALUM. (35')	EACH	---	
LUMINAIRE POLE W/15' ARM (SEE POLE SUMMARY)	EACH	---	
CONCRETE CONTROLLER PAD	EACH	1	
CONCRETE FOOTING – PEDESTAL (15')	EACH	2	
CONCRETE FOOTING – PEDESTAL (35')	EACH	---	
CONCRETE FOOTING – POLE	EACH	3	
CONDUIT ELBOW 90° 2"	EACH	AS REQ'D	
CONDUIT ELBOW 90° 3"	EACH	AS REQ'D	
BACK PLATE 5" 3 SECTION (2" RETROREFLECTIVE)	EACH	6	
BACK PLATE 5" 5 SECTION (2" RETROREFLECTIVE)	EACH	1	
TERMINAL BLOCK	EACH	5	
SERVICE BOX	EACH	4	
JUNCTION BOX (PRE-FAB)	EACH	---	
GROUND ROD & CLAMP	EACH	6	
PEDESTRIAN PUSHBUTTON W/SIGN ◔	EACH	---	
PEDESTRIAN INDICATIONS LED (16"x18" COMBINATION) (COUNTDOWN)	EACH	4	
LED TRAFFIC SIGNAL LENS (12")	EACH	26	
ENTRANCE HEAD	EACH	1	
CIRCUIT BREAKER & BOX 50 AMP.	EACH	1	
SURGE ARRESTOR – A.C.SERVICE	EACH	1	
SURGE ARRESTOR – DETECTOR	EACH	---	
6 PR. COMMUNICATION CABLE	LIN.FT.	---	
DETECTOR LOOP WIRE NO. 14 AWG 1/c	LIN.FT.	---	
SHIELDED DETECTOR LEAD-IN NO.14 AWG 2/c	LIN.FT.	---	
MULTI-CONDUCTOR CABLE NO.14 AWG 15/c	LIN.FT.	---	
MULTI-CONDUCTOR CABLE NO.14 AWG 7/c	LIN.FT.	580	
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	650	
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	20	
#8 AWG GROUND (GREEN)	LIN.FT.	420	
CONDUIT 1"(RGC)	LIN.FT.	AS REQ'D	
CONDUIT 1 1/2"(RGC)	LIN.FT.	---	
CONDUIT 2"(PVC)	LIN.FT.	157	
CONDUIT 2"(RGC)	LIN.FT.	474	
CONDUIT 3"(RGC)	LIN.FT.	355	
STREET NAME SIGN	EACH	3	
LEFT TURN SIGNAL (R10-10) SIGN	EACH	---	
LEFT TURN SIGNAL (R10-12) SIGN	EACH	1	
L.E.D. LUMINAIRE W/ MOUNTING ARM	EACH	2	
WAVETRONIC SMART SENSOR ADVANCE W/ MOUNTING HARDWARE	EACH	3	
LIGHTNING PROTECTION – WAVETRONIC CLICK!200	EACH	3	
POWER SUPPLY – WAVETRONIC CLICK!201	EACH	1	
MICROWAVE CABLE (BELDON #9331 OR APPROVED EQUAL)	LIN. FT.	500	

-QUANTITIES FOR INFORMATION ONLY-

NOTES: ◔ The traffic signal pushbuttons shall be Accessible Pedestrian Signals (APS) units per City Standard Specifications.

* City to Provide.

POLE AND EQUIPMENT FINISH:

Surface preparation

The exterior steel surface shall be blasted clean in accordance with the requirements outlined in the Steel Structures Painting Council Surface Preparation Specification No. 6, (SSPCSP60) utilizing a dry abrasive, closed cycle, recirculating system with centrifugal wheels and abrasive. The abrasive used shall be steel shot conforming to the Society of Automotive Engineers (SAE) Recommended Practice No. J827 with particle size meeting SAE Shot No. S280.

Zinc Coating

The pole assembly shall be hot-dip galvanized to the requirements of either ASTM A123 (Fabricated items) or ASTM A153 (Hardware items) by immersion in a molten bath of prime western grade zinc maintained between 810° F and 850° F. Maximum aluminum content of the bath shall not exceed 0.01%.

Top Coat

All visually exposed exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a minimum dry film thickness (DFT) of 0.05mm (2.0 mils). Prior to application of the topcoat, the surface shall be mechanically etched and pre-heated to 450° F for a minimum of one hour. The coating shall be electrostatically applied and cured at a minimum temperature of 400° F and the color shall be BLACK.

PHASE TIMING

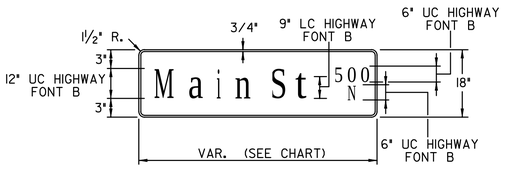
FUNCTION	PHASE							
	1	2	3	4	5	6	7	8
MINIMUM GREEN	–	–	8.0	10.0	–	10.0	–	10.0
MAXIMUM GREEN	–	–	15.0	50.0	–	25.0	–	30.0
YELLOW CHANGE	–	–	3.2	3.9	–	3.2	–	3.9
RED CLEAR	–	–	2.5	1.9	–	2.5	–	1.9
ADDED INITIAL	–	–	1.0	2.0	–	2.0	–	2.0
MAXIMUM INITIAL	–	–	10.0	15.0	–	15.0	–	15.0

Phase Timing reflects initial operation.
Phases 4 & 8 to Soft Recall.

OVERHEAD STREET NAME SIGNS

LEGEND	LENGTH	QUANTITY
35th 4800 E	60"	2
Oliver 3500 N	66"	1

See Sh. No. 25 for more information



SERVICE/JUNCTION BOX SUMMARY

STATION	DIST.-SIDE	BASELINE
100+40.1	39.0' Rt.	OLIVER
99+52.3	44.3' Rt.	OLIVER
99+61.0	36.0' Lt.	OLIVER
100+30.0	34.8' Lt.	OLIVER

RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES

ITEM	UNIT	QUANTITY
TRAFFIC SIGNALIZATION (35TH ST N & OLIVER ST.)	LUMP SUM	1

NOTE:
The traffic signal system shall be complete and the contractor shall furnish and install all equipment and materials necessary for the satisfactory operation of electrical apparatus and for the complete operation of the traffic signal system whether specifically mentioned or not.

No.	Revision	By	Date

35TH STREET NORTH AND OLIVER STREET
TRAFFIC SIGNALIZATION

GENERAL NOTES & QUANTITIES

35TH ST. N. & OLIVER ST.
GARY JANZEN, P.E.– CITY ENGINEER
CITY OF WICHITA PROJECT NO. 472-85278

PEC
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Designed by	SAC, BMM	Job No.	31-15954-000
Drawn by	BJS	Date	April 2017

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